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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,682	12/20/2000	Hiroaki Nakamura	Q62095	3922

7590 12/29/2005

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EXAMINER	
THOMPSON, JAMES A	
ART UNIT	**PAPER NUMBER**
2624	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/739,682	NAKAMURA, HIROAKI	
	Examiner	Art Unit	
	James A. Thompson	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 December 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 23 September 2005 has been entered.

Response to Arguments

2. Applicant's arguments filed 23 September 2005 have been fully considered but they are not persuasive.

Regarding page 8, line 12 to page 9, line 21: *Applicant argues* that Examiner is inconsistent and that the basic compression characteristics are not preliminarily set since values such as BASE have to be calculated.

Examiner responds that, in the previous office action, dated 25 April 2005 and mailed 27 May 2005, it was not Examiner's contention that the compression *amounts* are preliminarily set in the teachings of Ogura (US Patent 6,314,198 B1). In fact, Examiner demonstrates that the compression *amounts* are, as Applicant states, calculated and thus not preliminarily set (see page 2, line 27 to page 3, line 6 of said previous office action). However, basic compression *amounts* are not recited in claim 1. Instead, basic compression *characteristics* are recited in claim 1. A compression characteristic is a much broader concept that the more narrowly defined compres-

sion amount. A compression amount is the specifically defined numerical amount by which data is compressed. A compression *characteristic*, on the other hand, is simply a feature that helps to identify, describe or otherwise delineate the compression that is to be performed. While a compression amount is clearly a subset of what is understood to be the set of possible compression characteristics, a compression amount is in no way the only possible type of compression characteristic. In the prior art rejections given in said previous office action, and below as well, Examiner has taken what Examiner believes to be a broad yet reasonable interpretation of the term "basic compression characteristic" in considering the type of apparatus, the type of photographing portion, and the type of output device to be basic compression characteristics since said characteristics are directly used in the subsequent calculations of the compression amounts.

Regarding page 10, lines 1-12: Applicant's arguments in this section are directed to the present amendments to the claims. While Examiner believes that the present amendments to the claims do overcome the prior art previously used in the prior art rejections, additional art has been discovered which is now applied. The presently amended claims have thus been rendered obvious to one of ordinary skill in the art at the time of the invention, as demonstrated in detail below. Two references newly relied upon to teach the present limitations of the claims, Kishida (US Patent 5,287,418) and Takeo (US Patent 5,796,870), were previously cited in item 7 of the first office action, dated 21 July 2004 and mailed 29 July 2004, as pertinent prior art and listed in the Notice of References Cited that was mailed with said first office action.

Regarding page 10, line 13 to page 11, line 3: Examiner concedes that compression *amounts* are not preliminarily set in Ogura. However, as discussed above, the basic compression *characteristics* are preliminarily set.

Regarding page 11, lines 4-12: Other means of setting the basic compression characteristics, as recited in claim 1, are possible apart from setting the basic compression characteristics in memory. One such means is by connecting or setting the type of apparatus, the type of photographing portion, and the type of output device *via* the appropriate connections.

Regarding page 11, lines 13-17: Webb (US Patent 5,933,254) teaches that the settings of a device are preset in memory (column 3, lines 32-35 of Webb, as cited in said previous office action). Since the basic compression characteristics taught by Ogura are the type of apparatus, the type of photographing portion, and the type of output device, as discussed above, it is by *combination* that Ogura and Webb teach the storage of compression or expansion characteristics.

Regarding page 11, line 18 to page 12, line 6: The newly added claims 20 and 21 have been fully considered by Examiner. The prior art rejections of claims 20 and 21 are given in detail below.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-3 and 5-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishida (US Patent 5,287,418) in view of Takeo (US Patent 5,796,870).

Regarding claim 1: Kishida discloses preliminarily setting a plurality of basic gradation conversion characteristics of image data (figure 2(S1) and column 3, lines 16-21 of Kishida), each characteristic representing an input/output relationship of the image data for a gradation conversion (figure 3 and column 22-28 of Kishida); selecting one or more basic gradation conversion characteristics from said plurality of gradation conversion characteristics (figure 2(S2); figure 4; and column 3, lines 36-42 of Kishida); and converting the gradation of said image data using the thus selected one or more basic gradation conversion characteristics (figure 2(S3-S4) and column 4, lines 47-56 of Kishida).

Kishida does not disclose expressly that said basic gradation conversion characteristics are specifically basic compression characteristics and/or basic expansion characteristics.

Takeo discloses basic compression characteristics and basic expansion characteristics which are used to compress or expand gradation of image data (column 16, lines 43-47 of Takeo). The resultant compression rate (column 16, lines 55-59 of Takeo) determines whether a compression or an expansion is performed. Expansion is simply when the compression rate is such that a larger dynamic range results instead of a smaller dynamic range.

Kishida and Takeo are combinable because they are from the same field of endeavor, namely the adjustment of gradation characteristics between digital image input and digital image output

devices, so as to provide an optimal result on the digital image output device. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to compress or expand the dynamic range of the image data, as taught by Takeo, wherein a plurality of said basic compression characteristics or basic expansion characteristics taught by Takeo are preliminarily set, selected among, and used for image data conversion, as taught by Kishida. The suggestion for doing so would have been compressing and expanding the dynamic range of the image data, as taught by Takeo, is simply a specific type of the gradation conversion taught by Kishida. By combining Takeo with Kishida, the system of Kishida thus performs a specific kind of gradation conversion, namely compression and/or expansion, based on the teachings of Takeo. Therefore, it would have been obvious to combine Takeo with Kishida to obtain the invention as specified in claim 1.

Regarding claim 2: Kishida in view of Takeo discloses that said plurality of basic compression characteristics or basic expansion characteristics are preliminarily set in accordance with at least one of an original type, an original size, and an analysis result of said image data (column 3, lines 28-36 of Kishida). As demonstrated above in the arguments regarding claim 1, the gradation conversion characteristics taught by Kishida correspond to the basic compression characteristics and basic expansion characteristics taught by Takeo, and are thus taught by combination.

Regarding claim 3: Kishida in view of Takeo discloses that said one or more of said plurality of basic compression characteristics or said plurality of basic expansion characteristics are selected in accordance with at least one of an original

type, an original size, and an analysis result of said image data (figure 4 and column 3, lines 41-47 of Kishida). As demonstrated above in the arguments regarding claim 1, the gradation conversion characteristics taught by Kishida correspond to the basic compression characteristics and basic expansion characteristics taught by Takeo, and are thus taught by the combination of Kishida in view of Takeo.

Regarding claim 5: Kishida in view of Takeo discloses that one or more basic compression characteristics or basic expansion characteristics are selected (column 3, lines 36-42 of Kishida) by a manual operation (figure 4 and column 3, lines 48-54 of Kishida). As demonstrated above in the arguments regarding claim 1, the gradation conversion characteristics taught by Kishida correspond to the basic compression characteristics and basic expansion characteristics taught by Takeo, and are thus taught by the combination of Kishida in view of Takeo.

Regarding claim 6: Kishida in view of Takeo discloses that said basic compression characteristics or basic expansion characteristics are provided as a parameter or a look-up table (figure 4 and column 3, lines 32-36 of Kishida). As demonstrated above in the arguments regarding claim 1, the gradation conversion characteristics taught by Kishida correspond to the basic compression characteristics and basic expansion characteristics taught by Takeo, and are thus taught by the combination of Kishida in view of Takeo.

Regarding claim 7: Kishida in view of Takeo discloses analyzing said image data (column 3, lines 36-42 of Kishida); setting a processing condition for compressing or expanding the gradation of said image information using said selected one or more basic compression characteristics or basic expansion char-

acteristics in accordance with said analysis result (column 3, lines 36-42 of Kishida); and processing said image data in accordance with the thus set processing condition (column 4, lines 48-56 of Kishida). As demonstrated above in the arguments regarding claim 1, the gradation conversion characteristics taught by Kishida correspond to the basic compression characteristics and basic expansion characteristics taught by Takeo, and are thus taught by the combination of Kishida in view of Takeo.

Regarding claim 8: Kishida in view of Takeo discloses setting a processing condition for compressing or expanding the gradation of said image information using said selected one or more basic compression characteristics or basic expansion characteristics (column 3, lines 36-42 of Kishida) by a manual operation (figure 4 and column 3, lines 48-54 of Kishida); and processing said image data in accordance with the thus set processing condition (column 4, lines 48-56 of Kishida). As demonstrated above in the arguments regarding claim 1, the gradation conversion characteristics taught by Kishida correspond to the basic compression characteristics and basic expansion characteristics taught by Takeo, and are thus taught by the combination of Kishida in view of Takeo.

Regarding claim 9: Kishida discloses that said processing condition is set as a look-up table (column 4, lines 52-56 of Kishida).

Regarding claim 10: Kishida discloses preliminarily setting a plurality of basic gradation conversion characteristics of image data (figure 2(S1) and column 3, lines 16-21 of Kishida); selecting one or more basic gradation conversion characteristics from said plurality of gradation conversion characteristics (figure 2(S2); figure 4; and column 3, lines 36-42

of Kishida); analyzing image data (column 3, lines 36-42 of Kishida); setting a processing condition for converting the gradation of said image data using the thus selected one or more basic conversion characteristics in accordance with said analysis result obtained by thus analyzing the image data (column 3, lines 36-42 of Kishida); and processing said image data in accordance with the thus set processing condition (column 4, lines 48-56 of Kishida).

Kishida does not disclose expressly that said basic gradation conversion characteristics are specifically basic compression characteristics and/or basic expansion characteristics.

Takeo discloses basic compression characteristics and basic expansion characteristics which are used to compress or expand gradation of image data (column 16, lines 43-47 of Takeo). The resultant compression rate (column 16, lines 55-59 of Takeo) determines whether a compression or an expansion is performed. Expansion is simply when the compression rate is such that a larger dynamic range results instead of a smaller dynamic range.

Kishida and Takeo are combinable because they are from the same field of endeavor, namely the adjustment of gradation characteristics between digital image input and digital image output devices, so as to provide an optimal result on the digital image output device. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to compress or expand the dynamic range of the image data, as taught by Takeo, wherein a plurality of said basic compression characteristics or basic expansion characteristics taught by Takeo are preliminarily set, selected among, used to set a processing condition, and used to process said image data, as

taught by Kishida. The suggestion for doing so would have been compressing and expanding the dynamic range of the image data, as taught by Takeo, is simply a specific type of the gradation conversion taught by Kishida. By combining Takeo with Kishida, the system of Kishida thus performs a specific kind of gradation conversion, namely compression and/or expansion, based on the teachings of Takeo. Therefore, it would have been obvious to combine Takeo with Kishida to obtain the invention as specified in claim 10.

Regarding claim 11: Kishida discloses preliminarily setting a plurality of basic gradation conversion characteristics of image data (figure 2(S1) and column 3, lines 16-21 of Kishida); selecting one or more basic gradation conversion characteristics from said plurality of gradation conversion characteristics (figure 2(S2); figure 4; and column 3, lines 36-42 of Kishida); setting a processing condition for converting the gradation of said image data using the thus selected one or more basic conversion characteristics (column 3, lines 36-42 of Kishida) by a manual operation (figure 4 and column 3, lines 48-54 of Kishida); and processing said image data in accordance with the thus set processing condition (column 4, lines 48-56 of Kishida).

Kishida does not disclose expressly that said basic gradation conversion characteristics are specifically basic compression characteristics and/or basic expansion characteristics.

Takeo discloses basic compression characteristics and basic expansion characteristics which are used to compress or expand gradation of image data (column 16, lines 43-47 of Takeo). The resultant compression rate (column 16, lines 55-59 of Takeo)

determines whether a compression or an expansion is performed. Expansion is simply when the compression rate is such that a larger dynamic range results instead of a smaller dynamic range.

Kishida and Takeo are combinable because they are from the same field of endeavor, namely the adjustment of gradation characteristics between digital image input and digital image output devices, so as to provide an optimal result on the digital image output device. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to compress or expand the dynamic range of the image data, as taught by Takeo, wherein a plurality of said basic compression characteristics or basic expansion characteristics taught by Takeo are preliminarily set, selected among, used to set a processing condition, and used to process said image data, as taught by Kishida. The suggestion for doing so would have been compressing and expanding the dynamic range of the image data, as taught by Takeo, is simply a specific type of the gradation conversion taught by Kishida. By combining Takeo with Kishida, the system of Kishida thus performs a specific kind of gradation conversion, namely compression and/or expansion, based on the teachings of Takeo. Therefore, it would have been obvious to combine Takeo with Kishida to obtain the invention as specified in claim 11.

Regarding claim 12: Kishida discloses a selecting device (figure 4 of Kishida) for selecting one or more basic gradation conversion characteristics (figure 2(S2); and column 3, lines 36-42 of Kishida) from preliminarily set plurality of basic gradation conversion characteristics of image data (figure 2(S1) and column 3, lines 16-21 of Kishida) for use in gradation conversion of image data supplied by an image information supply

source (column 4, lines 46-56 of Kishida); and an image processing device (figure 1(5) of Kishida) for converting the gradation of said image data using the thus selected one or more basic gradation conversion characteristics selected by said selecting device (figure 2(S3-S4) and column 4, lines 47-56 of Kishida).

Kishida does not disclose expressly that said basic gradation conversion characteristics are specifically basic compression characteristics and/or basic expansion characteristics.

Takeo discloses basic compression characteristics and basic expansion characteristics which are used to compress or expand gradation of image data (column 16, lines 43-47 of Takeo). The resultant compression rate (column 16, lines 55-59 of Takeo) determines whether a compression or an expansion is performed. Expansion is simply when the compression rate is such that a larger dynamic range results instead of a smaller dynamic range.

Kishida and Takeo are combinable because they are from the same field of endeavor, namely the adjustment of gradation characteristics between digital image input and digital image output devices, so as to provide an optimal result on the digital image output device. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to compress or expand the dynamic range of the image data, as taught by Takeo, wherein a plurality of said basic compression characteristics or basic expansion characteristics taught by Takeo are preliminarily set, selected among, and used for image data conversion, as taught by Kishida. The suggestion for doing so would have been compressing and expanding the dynamic range of the image data, as taught by Takeo, is simply a specific type of the gradation conversion taught by Kishida. By combining Takeo with

Kishida, the system of Kishida thus performs a specific kind of gradation conversion, namely compression and/or expansion, based on the teachings of Takeo. Therefore, it would have been obvious to combine Takeo with Kishida to obtain the invention as specified in claim 12.

Regarding claim 13: Kishida in view of Takeo discloses a setting section (figure 1(51) of Kishida) for analyzing the image data (column 3, lines 36-42 of Kishida) and setting a processing condition for compressing or expanding the gradation of said image data using said one or more basic compression characteristics or basic expansion characteristics selected by said selecting device in accordance with an analyzing result obtained by thus analyzing the image data (column 3, lines 36-42 of Kishida), wherein said image processing device processes said image data in accordance with the processing condition set by said setting section (column 4, lines 48-56 of Kishida). As demonstrated above in the arguments regarding claim 12, the gradation conversion characteristics taught by Kishida correspond to the basic compression characteristics and basic expansion characteristics taught by Takeo, and are thus taught by the combination of Kishida in view of Takeo.

Regarding claim 14: Kishida in view of Takeo discloses a setting section (figure 1(51) of Kishida) for setting a processing condition for compressing or expanding the gradation of said image data by a manual operation (figure 4 and column 3, lines 48-54 of Kishida) using said selected one or more basic compression characteristics or basic expansion characteristics selected by said selecting device (column 3, lines 36-42 of Kishida), wherein said image processing device processes said image data in accordance with the processing condition set by

said setting section (column 4, lines 48-56 of Kishida). As demonstrated above in the arguments regarding claim 12, the gradation conversion characteristics taught by Kishida correspond to the basic compression characteristics and basic expansion characteristics taught by Takeo, and are thus taught by the combination of Kishida in view of Takeo.

Regarding claim 15: Kishida in view of Takeo discloses that said selecting device selects said one or more basic compression characteristics or basic expansion characteristics in accordance with at least one of an original type of an image as an image data source, an original size of the image as an image data source, and an analysis result of said image data (figure 4 and column 3, lines 41-47 of Kishida). As demonstrated above in the arguments regarding claim 12, the gradation conversion characteristics taught by Kishida correspond to the basic compression characteristics and basic expansion characteristics taught by Takeo, and are thus taught by the combination of Kishida in view of Takeo.

Regarding claim 16: Kishida in view of Takeo discloses selecting at least two of the basic compression characteristics and basic expansion characteristics as selected characteristic sets ($f_1(x)$ and $f_2(x)$) (column 4, lines 32-37 of Kishida) and cascading the selected characteristic sets (column 4, lines 38-41 and equation 2 of Kishida). Two curves ($f_1(x)$ and $f_2(x)$) are selected (column 4, lines 32-37 of Kishida) and used together through weighting to determine the appropriate tone curve ($f_d(x)$) (column 4, lines 38-41 and equation 2 of Kishida). As demonstrated above in the arguments regarding claim 1, the gradation conversion characteristics taught by Kishida correspond to the basic compression characteristics and basic expansion character-

istics taught by Takeo, and are thus taught by the combination of Kishida in view of Takeo.

Regarding claim 17: Kishida discloses that the preliminary setting of basic compression characteristics or basic expansion characteristics are preset in memory (column 3, lines 19-21 of Kishida). As demonstrated above in the arguments regarding claim 1, the gradation conversion characteristics taught by Kishida correspond to the basic compression characteristics and basic expansion characteristics taught by Takeo, and are thus taught by the combination of Kishida in view of Takeo.

Regarding claim 18: Kishida discloses that, in the selecting device, selecting one or more basic compression characteristics or basic expansion characteristics comprises selecting at least two of the basic compression characteristics and basic expansion characteristics as selected characteristic sets ($f_1(x)$ and $f_2(x)$) (column 4, lines 32-37 of Kishida) and cascading the selected characteristic sets (column 4, lines 38-41 and equation 2 of Kishida). Two curves ($f_1(x)$ and $f_2(x)$) are selected (column 4, lines 32-37 of Kishida) and used together through weighting to determine the appropriate tone curve ($f_d(x)$) (column 4, lines 38-41 and equation 2 of Kishida). As demonstrated above in the arguments regarding claim 1, the gradation conversion characteristics taught by Kishida correspond to the basic compression characteristics and basic expansion characteristics taught by Takeo, and are thus taught by the combination of Kishida in view of Takeo.

Regarding claim 19: Kishida discloses a memory (figure 1 (56) of Kishida), wherein the preliminary setting of basic compression characteristics or basic expansion characteristics are preset in the memory (column 3, lines 19-21 of Kishida). As

demonstrated above in the arguments regarding claim 12, the gradation conversion characteristics taught by Kishida correspond to the basic compression characteristics and basic expansion characteristics taught by Takeo, and are thus taught by the combination of Kishida in view of Takeo.

Regarding claim 20: Kishida discloses that the input/output relationship of the image data (figure 3 and column 3, lines 22-28 of Kishida) is defined on at least one side of an upper level and a lower level side of a predetermined level for an input value of the image data (figure 3($f_1(x)$,$f_d(x)$) of Kishida). The variable $f_1(x)$ is set on the upper side of $f_d(x)$. The variable $f_d(x)$ is calculated to determine the output color level (column 4, lines 38-41 of Kishida).

Kishida further discloses that two basic compression or expansion characteristics are selected ($f_1(x)$ and $f_2(x)$) (column 4, lines 32-37 of Kishida), one of the two characteristics representing a relationship defined on either side of the upper level side or the lower level side (figure 3($f_1(x)$,$f_d(x)$) of Kishida), and another of the two characteristics representing a relationship defined on the other side (figure 3($f_2(x)$,$f_d(x)$) of Kishida). The variable $f_1(x)$ is set on the upper side of $f_d(x)$. The variable $f_2(x)$ is set on the lower side of $f_d(x)$. The variable $f_d(x)$ is calculated to determine the output color level (column 4, lines 38-41 of Kishida). As demonstrated above in the arguments regarding claim 1, the gradation conversion characteristics taught by Kishida correspond to the basic compression characteristics and basic expansion characteristics taught by Takeo, and are thus taught by the combination of Kishida in view of Takeo.

Further regarding claim 21: Kishida discloses that the two selected basic compression or expansion characteristics ($f_1(x)$ and $f_2(x)$) are cascaded to define the input/output relationship ($f_d(x)$) on both the upper level side and the lower level side of the predetermined level for the input value of the image data (column 4, lines 38-41 and equation 2 of Kishida). Two curves ($f_1(x)$ and $f_2(x)$) are selected (column 4, lines 32-37 of Kishida) and used together through weighting to determine the appropriate tone curve ($f_d(x)$) (column 4, lines 38-41 and equation 2 of Kishida).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kishida (US Patent 5,287,418) in view of Takeo (US Patent 5,796,870) and well-known prior art.

Regarding claim 4: Kishida in view of Takeo does not disclose expressly that said original type is at least one of a negative film, a reversal film, and a black-and-white film, and wherein said original size is at least one of a 135 size, a 240 size and a 120/220 size.

In the previous office action, dated 25 April 2005 and mailed 27 May 2005, and in the first office action, dated 21 July 2004 and mailed 29 July 2004, Official Notice was taken that the negative film, reversal film, and black-and white film types and the 135, 240 and 120/220 film sizes are old, well-known and expected in the art. Since no timely dispute has been filed, this is **now considered accepted by Applicant to be well-known prior art.** It would have been obvious to one of ordinary skill in the art to use as the original type at least one of a negative film, a reversal film, and a black-and-white film since negative film is a standard format used to process film images,

a reversal film is a standard format for direct projection and viewing of film images, and black-and-white film is gives clear images based on grayscale levels. All of these types of films are common types that can be used as hardcopy input types to be scanned. Further, it would have been obvious to one of ordinary skill in the art to use as the original size one of a 135 size, a 240 size, and a 120/220 size since said sizes are common sizes used to produce printed images.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson
Examiner
Art Unit 2624

20 December 2005

THOMAS D.